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10/707,470	12/16/2003	James A. Hough	F-670	1469

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EXAMINER

KARLS, SHAY LYNN

ART UNIT PAPER NUMBER

1744

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/707,470

Applicant(s)

HOUGH ET AL.

Examiner

Shay L. Karls

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Drawings***

The drawings were received on 7/17/06. These drawings are acceptable.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the terminology of "rectangular prism" does not have antecedent basis in the specification. Please amend the specification to include the terminology in the claims.

### ***Claim Objections***

Claim 16 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 9. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites the limitation "the top surface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 20 recites the limitation "the leading edge" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-3, 5, 7-8, 10 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Gelardi et al. (USPN 5457843).

Gelardi teaches a machine optics cleaner comprising a substrate sheet (3) with a first and second surface (upper and lower surfaces) (claims 1 and 2). The first surface of the sheet comprises a first and second strip of material (15, adjacent peaks; figure 1) (claim 1). The first and second strips have a first strip height (figure 1 shows the vertical height between the peak and the valley of the strips) and are orientated perpendicular to the feed path of the apparatus. The first and second strips of material will compress when drawn through a roller (col. 5, lines 54-60) (claim 1). The first strip is separated from the second strip by a first distance (figure 1, distance between the valleys) (claim 1). The height of the strips is large compared to the substrate thickness (figure 1 shows that the height between the peak and the valley is larger than the thickness of 3) (claim 1). The strip height is more than double the height of the substrate (figure 1) (claim 8). The first strip of material comprises open cell foam (col. 4, lines 9-12) (claim 3). The first strip of material comprises lint-free, lead-free, non-abrasive, open cell foam (col. 3, lines 11-15; lines 50-51) (claim 5). The substrate sheet has a leading edge handle (7)

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(claim 7). The substrate sheet has approximately the planar dimensions of a letter-sized sheet of paper (col. 5, lines 36-40) (claim 8). The first strip is narrow to allow the first strip to vertically decompress when exiting the roller nip (claim 10). At least one of the first and second strips have the shape of a rectangular prism (figure 1) (claim 18).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al. in view of Kikuchi et al. (USPN 6353233)

Gelardi teaches that the first strip of material is closer to the front edge of the substrate sheet than the second strip of material. Gelardi also teaches that the second strip is made from open cell foam material. Gelardi however fails to teach that the open cell foam material of the second strip comprises brush bristles. Kikuchi teaches a cleaning sheet comprising bristles (3a).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gelardi's second strip so that it comprises bristles as taught by Kikuchi so that the bristles will aid in cleaning contaminants such as dust attached to the sensors (col. 4, lines 46-53).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al.

Gelardi teaches all the essential elements of the claimed invention however fails to teach that the substrate has approximately the planar dimensions of a number 10 envelope. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gelardi's substrate to have dimensions approximately equal to a number 10 envelope since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently than the prior art device, and therefore, the claimed device is not patentable distinct from the prior art device. MPEP 2144.04.

Claims 9, 13-14, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al. (USPN 5457843).

Gelardi teaches all the essential elements of the claimed invention however fails to teach that the first strip height is approximately twelve times the substrate thickness, that the first strip height is 0.75 inches, the first strip has a width of 0.5 inches and that the first distance is 2.5 inches. It would have been obvious to modify Gelardi's invention since the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device. A device having the claimed relative dimensions would not perform differently than the prior art

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device and therefore, the claimed device is not patentable distinct from the prior art device.

MPEP 2144.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al. (USPN 5457843).

Gelardi teaches all the essential elements of the claimed invention however fails to teach that the substrate comprises a semi-rigid vinyl material or an ABS material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the substrate from a semi-rigid vinyl material or an ABS material, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al. (USPN 5457843) in view of Bhattacharjee et al. (USPN 5227844).

Gelardi teaches all the essential elements of the claimed invention including strips having a triangular shape, a looped shape and a circular shape. Gelardi however fails to teach that the first strip has the shape of a rectangular prism. Gelardi also teaches that the first strip has a top surface with notches (29) for increasing the cleaning action and to provide individual elements, which fit within surface irregularities of the path that the apparatus is cleaning. Bhattacharjee teaches a cleaning sheet comprising strips having the shape of rectangular prism as well as triangular and circular shapes. Both Gelardi and Bhattacharjee teach using multiple shapes interchangeably for the cleaning strips. Gelardi teaches using a rectangular block inside a loop (col. 7, lines 55-56) however Gelardi never explicitly states that the final shape of the cleaning strip is rectangular. It would have been obvious to at the time the invention was made to use a

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rectangular prism as the shape of the cleaning strip as taught by Bhattacharjee since one of ordinary skill in the art, would have expected Applicant's invention to perform equally well with either the rectangular or the triangular shape because both shaped perform the same function of cleaning optical sensors equally well. Additionally, the applicant's claims demonstrate that the triangular shape and the rectangular shape cleaning equally well since the applicant claims both shapes in different claims.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelardi et al. (USPN 5457843) in view of Bhattacharjee et al. (USPN 5227844) and further in view of Wilcox (USPN 2886841).

Gelardi teaches all the essential elements of the claimed invention including strips having a triangular shape, a looped shape and a circular shape. Gelardi however fails to teach that the first strip has the shape of a rectangular prism and that the leading edge is angled. Gelardi also teaches that the first strip has a top surface with notches (29) for increasing the cleaning action and to provide individual elements, which fit within surface irregularities of the path that the apparatus is cleaning. Bhattacharjee teaches a cleaning sheet comprising strips having the shape of rectangular prism as well as triangular and circular shapes. Both Gelardi and Bhattacharjee teach using multiple shapes interchangeably for the cleaning strips. Gelardi teaches using a rectangular block inside a loop (col. 7, lines 55-56) however Gelardi never explicitly states that the final shape of the cleaning strip is rectangular. It would have been obvious to at the time the invention was made to use a rectangular prism as the shape of the cleaning strip as taught by Bhattacharjee since one of ordinary skill in the art, would have expected Applicant's invention to perform equally well with either the rectangular or the triangular shape because both shaped



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perform the same function of cleaning optical sensors equally well. Additionally, the applicant's claims demonstrate that the triangular shape and the rectangular shape cleaning equally well since the applicant claims both shapes in different claims. Wilcox teaches a cleaning sheet wherein the leading edge is angled (26). In addition to the Gelardi in view of Bhattacharjee, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Gelardi's leading edge so that it is angled as taught by Wilcox since the angled edge serves to permit the cleaning sheet to be inserted into the optical cleaner properly and with desired ease (col. 2, lines 31-34).

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

With regards to the Gelardi reference, the Applicant argues that the first strip is not separated from the second strip by a first distance and also that the first strip height is not relatively large compared to the substrate thickness. However, Gelardi shows that the first and second strip are separated by a first distance in figure 1. The first distance is the distance between the peaks (flat portion between the bottom of the peaks). Additionally, the first strip height is substantially larger than the substrate thickness as also shown in figure 1 and 4. The height of the first strip is from the bottom of the peak to the top portion of the peak. This height is substantially thicker than the substrate thickness.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SLK  
9/18/06



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